

November 28, 2006

Charles L.A. Terreni Chief Clerk and Administrator South Carolina Public Service Commission Post Office Drawer 11649 Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.

Power Plant Performance Report (October 2006)

Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of October 2006.

Sincerely,

s/ Len S. Anthony

Len S. Anthony Deputy General Counsel – Regulatory Affairs

LSA/dhs Enclosures 45612

c: John Flitter (ORS)

Progress Energy Service Company, LLC P.O. Box 1551 Raleigh, NC 27602 The following units had no off-line outages during the month of October:

Brunswick Unit 1 Brunswick Unit 2 Harris Unit 1 Mayo Unit 1 Roxboro Unit 2 Roxboro Unit 4

#### Robinson Unit 2

## Full Forced Outage

- A. <u>Duration:</u> The unit was taken out of service at 02:48 on October 25, and returned to service at 09:27 on October 27, a duration of 54 hours and 39 minutes.
- B. Cause: Turbine Control System Failure
- C. <u>Explanation</u>: The unit was manually shut down when the turbine control system malfunctioned due to the failure of integrated circuit control cards.
- D. <u>Corrective Action:</u> The integrated circuit cards were replaced, and the unit was returned to service.

#### Roxboro Unit 3

## Full Scheduled Outage

- A. <u>Duration:</u> The unit was taken out of service at 01:13 on September 30, and remained off-line for the month of October. The unit was off-line for a duration of 745 hours during the month of October.
- B. Cause: Major Turbine Outage and Boiler Inspection
- C. Explanation: The unit was taken out of service for a major turbine outage and boiler inspections.
- D. <u>Corrective Action:</u> Planned outage activities, including the turbine overhaul and boiler inspections, were in progress at the end of October.

Progress Ene	ergy Carolinas
Run Date	11/17/2006

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Brunswick 1 \*\*

	Month of October 2006		Twelve Month	Twelve Month Summary		
MDC	938	MW	938	MW	1	
Period Hours	745	HOURS	8,760	HOURS		
Net Generation	721,677	MWH	7,170,812	MWH	2	
Capacity Factor	103.27	%	87.27	%		
Equivalent Availability	100.00	%	85.46	%		
Output Factor	103.27	%	100.55	%		
Heat Rate	10,280	BTU/KWH	10,383	BTU/KWH		
	MWH	% of Possible	MWH 	% of Possible		
Full Scheduled	0	0.00	562,800	6.85	3	
Partial Scheduled	0	0.00	32,359	0.39	4	
Full Forced	0	0.00	292,813	3.56	5	
Partial Forced	24	0.00	290,652	3.54	6	
Economic Dispatch	0	0.00	0	0.00	7	
Possible MWH	698,810		8,216,880		8	

See 'Notes for Nuclear Units' filed with the January 2006 report.
 Gross of Power Agency

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Brunswick 2 \*\*

	Month of	October 2006	Twelve Month	Twelve Month Summary	
MDC	937	MW	931	MVV	1
Period Hours	745	HOURS	8,760	HOURS	
Net Generation	698,175	MWH	7,852,562	MWH	2
Capacity Factor	100.02	%	96.30	%	
Equivalent Availability	98.85	%	94.48	%	
Output Factor	100.02	%	99.09	%	
Heat Rate	10,478	BTU/KWH	10,520	BTU/KWH	
	MWH	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	231,001	2.83	3
Partial Scheduled	7,867	1.13	85,935	1.05	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	149	0.02	100,877	1.24	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	698,065		8,154,100		8

 <sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2006 report.
 \*\* Gross of Power Agency

# BASE LOAD POWER PLANT PERFORMANCE REPORT Harris 1 \*\*

	Month of	October 2006	Twelve Month	Twelve Month Summary	
MDC	900	MW	900	MW	1
Period Hours	745	HOURS	8,760	HOURS	
Net Generation	689,625	MWH	7,027,070	MWH	2
Capacity Factor	102.85	%	89.13	%	
Equivalent Availability	100.00	%	88.38	%	
Output Factor	102.85	%	100.75	%	
Heat Rate	10,680	BTU/KWH	10,853	BTU/KWH	
	MWH	% of Possible	MV/H	% of Possible	
Full Scheduled	0	0.00	820,800	10.41	3
Partial Scheduled	0	0.00	991	0.01	4
Full Forced	0	0.00	79,650	1.01	5
Partial Forced	0	0.00	86,249	1.09	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	670,500		7,884,000		8

See 'Notes for Nuclear Units' filed with the January 2006 report.
 Gross of Power Agency

# BASE LOAD POWER PLANT PERFORMANCE REPORT Robinson 2

	Month of October 2006		Twelve Month	Twelve Month Summary		
MDC	710	MW	710	MW	1	
Period Hours	745	HOURS	8,760	HOURS		
Net Generation	507,454	MWH	6,443,062	MWH	2	
Capacity Factor	95.94	%	103.59	%		
Equivalent Availability	91.91	%	99.07	%		
Output Factor	103.53	%	104.24	%		
Heat Rate	10,764	BTU/KWH	10,745	BTU/KWH		
	MWH	% of Possible	MWH	% of Possible		
Full Scheduled	0	0.00	0	0.00	3	
Partial Scheduled	0	0.00	14,253	0.23	4	
Full Forced	38,802	7.34	38,802	0.62	5	
Partial Forced	4,008	0.76	4,782	0.08	6	
Economic Dispatch	0	0.00	0	0.00	7	
Possible MWH	528,950		6,219,600		8	

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2006 report.

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Mayo 1 \*\*

	Month of	October 2006	Twelve Month	Twelve Month Summary		
MDC	745	MW	745	MVV	1	
Period Hours	745	HOURS	8,760	HOURS		
Net Generation	373,325	MWH	4,488,554	MWH	2	
Capacity Factor	67.26	%	68.78	%		
Equivalent Availability	100.00	%	93.01	%		
Output Factor	67.26	%	72.87	%		
Heat Rate	10,826	BTU/KWH	10,572	BTU/KWH	5	
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	0	0.00	312,677	4.79		3
Partial Scheduled	0	0.00	31,999	0.49		4
Full Forced	0	0.00	40,130	0.61		5
Partial Forced	0	0.00	71,361	1.09		6
Economic Dispatch	181,700	32.74	1,581,480	24.23		7
Possible MWH	555,025		6,526,200			8

See 'Notes for Fossil Units' filed with the January 2006 report.
 Gross of Power Agency

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 2

	Month of	October 2006	Twelve Month	Summary	See Notes*
MDC	670	MW	670	MW	1
Period Hours	745	HOURS	8,760	HOURS	
Net Generation	396,644	MWH	4,804,966	MWH	2
Capacity Factor	79.46	%	81.87	%	
Equivalent Availability	99.84	%	95.46	%	
Output Factor	79.46	%	83.20	%	
Heat Rate	9,185	BTU/KWH	9,376	BTU/KWH	
	MVVH	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	22,624	0.39	3
Partial Scheduled	721	0.14	171,350	2.92	4
Full Forced	0	0.00	71,411	1.22	5
Partial Forced	72	0.01	1,123	0.02	6
Economic Dispatch	101,713	20.38	797,726	13.59	7
Possible MWH	499,150		5,869,200		8

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 3

	Month of October 2006		Twelve Month	Twelve Month Summary		
MDC	707	MW	707	MW	1	
Period Hours	745	HOURS	8,760	HOURS		
Net Generation	-2,852	MWH	4,061,911	MWH	2	
Capacity Factor	-0.54	%	65.59	%		
Equivalent Availability	0.00	%	88.08	%		
Output Factor	0.00	%	72.76	%		
Heat Rate	0	BTU/KWH	10,125	BTU/KWH		
	MVVH	% of Possible	MWH	% of Possible		
Full Scheduled	526,715	100.00	610,601	9.86	3	
Partial Scheduled	0	0.00	30,952	0.50	4	
Full Forced	0	0.00	0	0.00	5	
Partial Forced	0	0.00	96,930	1.57	6	
Economic Dispatch	0	0.00	1,390,075	22.44	7	
Possible MWH	526,715		6,193,320		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.

Progress	Energy Carolinas
Run Date	11/17/2006

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 4 \*\*

	Month of	October 2006	Twelve Month Summary		See Notes*	
MDC	700	MVV	700	MVV	1	
Period Hours	745	HOURS	8,760	HOURS		
Net Generation	312,182	MWH	4,025,645	MWH	2	
Capacity Factor	59.86	%	65.65	%		
Equivalent Availability	100.00	%	95.53	%		
Output Factor	59.86	%	66.55	%		
Heat Rate	10,726	BTU/KWH	10,571	BTU/KWH		
	MVVH	% of Possible	MWH	% of Possible		
Full Scheduled	0	0.00	77,770	1.27	3	
Partial Scheduled	0	0.00	165,003	2.69	4	
Full Forced	0	0.00	5,600	0.09	5	
Partial Forced	0	0.00	25,957	0.42	6	
Economic Dispatch	209,318	40.14	1,832,024	29.88	7	
Possible MWH	521,500		6,132,000		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.
\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2005 - December 2005	October 2006	January 2006 - October 2006
Asheville	1	198	67.75	74.02	72.56
Asheville	2	194	70.36	62.94	58.18
Cape Fear	5	143	71.61	61.79	76.17
Cape Fear	6	173	64.61	58.44	65.41
Lee	1	79	51.59	19.42	48.34
Lee	2	76	51.41	17.17	44.45
Lee	3	252	61.16	30.77	62.29
Mayo	1	745	75.91	67.26	66.82
Robinson	1	174	77.78	80.62	79.12
Roxboro	1	385	77.66	76.50	76.89
Roxboro	2	670	64.35	79.46	81.60
Roxboro	3	707	68.49	-0.54	64.99
Roxboro	4	700	67.87	59.86	65.59
Sutton	1	97	51.17	19.02	45.64
Sutton	2	106	54.71	21.79	47.23
Sutton	3	410	59.66	42.71	53.10
Weatherspoon	1	49	44.37	15.22	37.79
Weatherspoon	2	49	42.93	13.83	39.51
Weatherspoon	3	78	61.89	25.96	52.65
Fossil System Total		5,285	67.22	51.06	66.14
Brunswick	1	938	94.38	103.27	84.54
Brunswick	2	937	86.02	100.02	95.80
Harris	1	900	100.59	102.85	86.31
Robinson Nuclear	2	710	92.77	95.94	103.05
Nuclear System Total		3,485	93.49	100.79	91.80
Total System		8,770	77.59	70.83	76.33

# Amended SC Fuel Rule Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor  $\geq$  92.5% during the 12 month period under review. For the test period April 1, 2006 through October 31, 2006, actual period to date performance is summarized below:

Period to Date: April 1, 2006 to October 31, 2006

## Nuclear System Capacity Factor Calculation (Based on net generation)

A. Nuclear system actual generation for SCPSC test period	A =	16,267,916	MWH
B. Total number of hours during SCPSC test period	B =	5,136	hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,485	MW
D. Reasonable nuclear system reductions (see page 2)	D =	1,788,293	MWH
E. SC Fuel Case nuclear system capacity factor: [(A+D) / (B+C)]	* 100 =	100.9%	

#### NOTE:

If Line Item  $E \ge 92.5\%$ , presumption of utility's minimum cost of operation. If Line Item E < 92.5%, utility has burden of proof of reasonable operations.

# Amended SC Fuel Rule Nuclear System Capacity Factor Calculation Reasonable Nuclear System Reductions Period to Date: <u>April 1, 2006</u> to <u>October 31, 2006</u>

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	160,194	0	829,590	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	314,330	241,993	79,683	45,402	
Reasonable coast down power reductions (MWH)	2,692	3,591	0	0	
Reasonable power ascension power reductions (MWH)	23,143	39,873	4,019	3,791	
Prudent NRC required testing outages (MWH)	5,519	27,278	36	6,384	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	774	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	505,879	312,735	913,328	56,351	
Total reasonable outage time exclusions [carry to Page 1, Line D]					1,788,293